

SAGAR RAWAL

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EDUCATION & PROFESSIONAL IT CERTIFICATIONS

University of Houston, Houston, TX
PhD in GeoPhysics

Expected 18 May 2029

Central Department of Physics, Tribhuvan University, Kathmandu, Nepal
MS in Physics, 3.73/4 GPA

April 2021

HPEASI: Introduction to Cluster Computing, Mar 2024

EarthScope Consortium: 2024 InSAR Processing and Analysis (ISCE+) technical Course, Jul 2024

NVIDIA: Fundamentals of Deep Learning, Jan 2025

RELEVANT COURSES

Geographic Information System (GIS), Geophysical Programming, Satellite Positioning and Geodesy, Rock Physics, Python Data Analysis, Geophysical Data Processing, Potential Field Theory, Applications of GPS & LIDAR, Seismic Wave & Ray Theory, Geospatial Analysis

PROFESSIONAL EXPERIENCE

Karnali Technical School, Nepal

Program Coordinator and Physics Instructor,

2021 – 2023

- Coordinated as the First Year Coordinator and Physics Instructor for Undergraduate
- Taught Physics, Computer, and Math utilizing Smart-Board and Augmented Reality technologies.
- Conducted Basic Coding Classes as part of extracurricular activities for students.
- Utilized Photoshop, After-Effects, and Illustrator for digital marketing to promote school activities to the public.
- Managed administrative tasks including publishing notices and serving as an information officer.

Jajarkot Polytechnic School, Nepal

Program Coordinator and Physics Instructor,

2020 – 2021

- Instructed Physics for Diploma programs in Civil, Pharmacy, Forestry, and Animal Science.
- Conducted laboratory sessions and demonstrated experiments according to the syllabus.
- Utilized Photoshop, After-Effects, and Illustrator for digital marketing to promote school activities to the public.

NRS Services, Kathmandu

Human Resources Officer,

2020 – 2021

- Managed staff and oversaw office operations.
- Collaborated actively with office staff in groups to ensure the smooth running of business operations.
- Minimized performance bottlenecks to enhance productivity by maximizing the utilization of manpower, materials, and machinery.
- Collected and prepared pre-production files, measurements, and worksheets.

Condensed Matter and Physics Research Center (CMPRC), Nepal

IT Support Officer,

2018 – 2020

- Provided technical support to the support team to ensure smooth running of servers and websites.
- Maintained CMPRC Websites, Database, Mobile Apps, and Server infrastructure.

Rolling Plans Private Limited, Kathmandu

Customer Care Representative,

2016 - 2018

- Educated customers and addressed their problems with care.
- Met the challenges of resolving difficult customer queries.
- Handled customers from the Enterprise Department efficiently, ensuring the delivery of excellent customer service.

SOFTWARE SKILLS

- InSAR Mapping using SBAS and PS InSAR using GMTSAR, ISCE, LiCSBAS, Mintpy StaMPS, and SNAP tool
- Utilized Generic Mapping Tools (GMT) for creating contour maps, histograms, 3D plots, vector fields, and time series data visualization.
- Conducted GIS and GNSS surveys using OPUS and PPP tools.
- Proficient in MATLAB, Sketchup, Microsoft Office suite, and basics in SolidWorks.
- Programming experience in Python and C++.
- Familiarity with ARC GIS for geographic information system tasks.

LANGUAGE SKILLS:

Fluent in English, Nepali, Hindi, and some basic Spanish.

HONORS AND AWARDS

- Best Essay Competition, Pakistan Embassy, Nepal
- Geo-Exhibition winner, Central Department of Geology Kirtipur TU, Nepal
- 2025 EAS Scholarship for outstanding Graduate Work in Geophysics, University of Houston.

ACTIVITIES AND CERTIFICATIONS

- Webinar on Solar Coronal Hole and their role in Space Weather, Dr. Michael S.F Kirk, NASA Goddard Space Flight Center ASTRA, LLC
- International E-Workshop Conference on Computational Condensed Matter Physics and Material Science (IWCCMP 2011), Butwal Nepal
- Seminar on Material Science & Engineering (SMSE-2014), New Horizon Institute Kalikanagar Butwal
- Workshop on Data analysis: Python and Origin, ST. Xavier's College Maitighar Kathmandu
- Scientific Data Analysis Workshop I, Astrophysical Research Group Nepal

BOOKS AND REFRESHER

- Rawal, Sagar (2020), *Computational Physics*, Central Campus TU
- Rawal, Sagar (2019), *Mathematical Physics Vol I*, Central Campus TU
- Rawal, Sagar (2018), *Entrance Book for MSc Physics*, Central Campus TU
- Rawal, S., & Wang, G. (2025). Long-Term Subsidence Assessment by LiCSBAS and Emerging Hot Spot Analysis in Kathmandu Valley. *Land*, 14(4), 700.

EXTRACURRICULAR ACTIVITIES

- **Robocon Competition:** Robotics Club, Pulchowk Campus, 2020
- **Plantation Program:** Central Department of Physics, 2019
- **Geo-Exhibition Competition Participant:** Central Department of Geology, 2018
- **Earthquake Relief Volunteer:** Nepal Government, 2015